SKYLIGHTTUBE™

U.S. SUNLIGHT CORP®
Alternative energy for everyday life

Tel: 877-50-USSUN
www.ussunlight.com
support@ussunlight.com

Model 2014ST Installation and Mounting Guide

Thank you for purchasing the SkylightTube from U.S. Sunlight Corp. We are committed to providing alternative energy products that can improve your everyday life and our environment. We have reduced packaging material and eliminated Styrofoam to reduce the impact on landfills. We offer an installation video that is available to view online at **www.ussunlight.com.**

If there is a problem with your U.S. Sunlight product call us at 1-877-50-USSUN
Spare parts, installation advice, or recommendations for professional installers in your area are only a phone call away. Professional installation may be much less than you expect, please call us to get average rates for your area.

Please note that this product is designed for asphalt shingles. Contact a professional installer for spanish tile, s-tile, concrete, metal or flat roof installations of this product.

Before beginning the installation of your new SkylightTube, please read through the entire installation instructions and call us if you have any questions.

TOOLS REQUIRED

- **Ladder**
- **Reciprocating saw or jig saw**
- **Power drill with a 1/2" – 1" inch drill bit** (only one needed)
- **1 – 2" deck screw and screw bit**
- **Hammer & roofing nails or self taping galvanized screws (included)**
- **Tin snips or wire cutters**
- **Caulk Gun with Waterproof Roofing Sealant**
- **Measuring tape or ruler**
- **Pencil or chalk**
- **Roofing knife or box cutter**
- **Flat pry bar**
- **Sheetrock saw**
- **Adjustable Wrench or Pliers**
- **Phillips Screwdriver or Drill Bit**

When deciding on a location for the SkylightTube, it is important to:

a. Make sure you are locating the final position centered between two ceiling joists.
b. Before beginning the installation, make sure there are no obstructions in the attic space and on the roof where you would like to install the the SkylightTube.
c. The Skylight Tube comes with 8 ft. of pre-attached flexible tube for installations up to 7.5 ft. For installations requiring over 7.5 ft of tube length, use the Rigid Tube Kit.
d. For optimal light transmission, install Skylight Tube on the southern or western side of the house. Installation on northern or eastern side of the house will cause a reduction in light transmission.

ATTENTION: Please consult a professional installer if you are unsure of where to locate your Skylight Tube or if you do not feel comfortable with the installation process.

Step 1 - Location of the diffuser

Determine where you wish to install the SkylightTube ***(fig. 1)*** and from inside the attic, center a nail or piece of wire between the ceiling joists and continue it through the drywall so it is visible from the ceiling below. ***(fig. 2)*** If using wire, put a 90 degree bend in the wire so it won't drop through. ***(fig. 3)***
Alternately, you can drive a nail up into the ceiling where you wish to locate the diffuser and find the location in the attic. Then find the closest center between rafters.

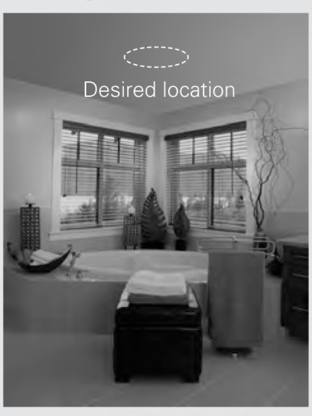
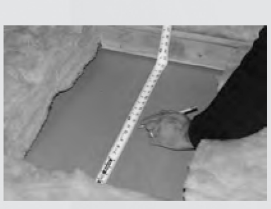


fig. 1


Inside attic *fig. 2*

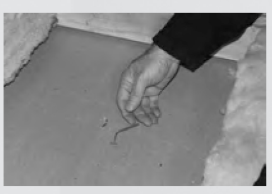
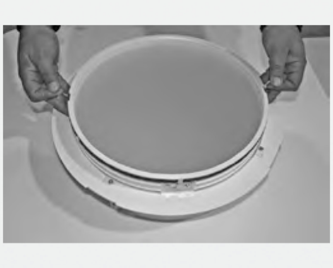


fig. 3

© Copyright 2011 US Sunlight Corp, Inc. 2014ST C02 ver 6



ATTENTION: Prior to installing the diffuser housing, remove the diffuser assembly by pulling up on the 2 mylar tabs and set it aside.

Step 2 - Cutting out the ceiling hole

Using a string make a loop around the protruding wire or nail and measure out 7.5" from the center. ***(fig. 4)*** Hold a pencil or pen to the string at the 7.5" mark and draw a circle measuring 15". ***(fig. 5)***

Begin cutting the circle with a drywall saw ***(fig. 6)*** as you get to the end of the cut hold on to the wire or nail to brace the material for removal. ***(fig. 5)***

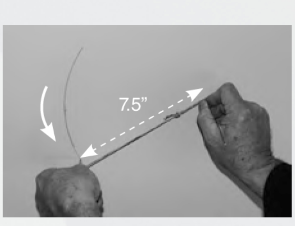


fig. 4

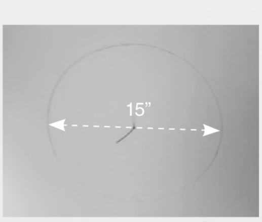


fig. 5

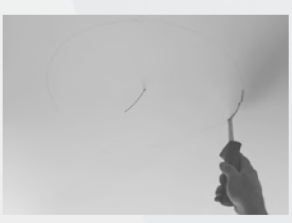


fig. 6

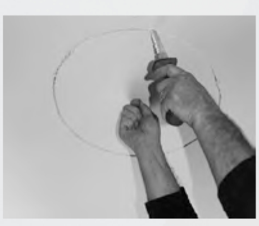


fig. 7

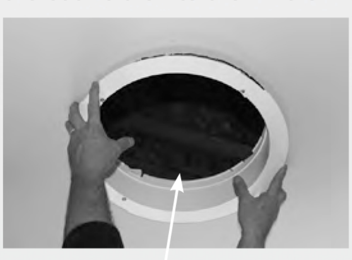


fig. 8

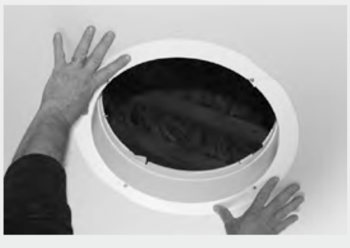


fig. 9

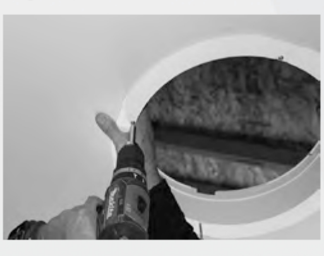


fig. 10

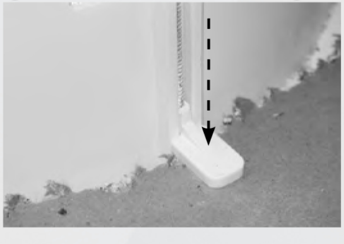


fig. 11

Step 3 - Installing the diffuser housing

Before inserting the diffuser housing through the cut hole on ceiling, the 4 hold-down tabs should be turned inward in order to clear the hole. Then bring them out before using a power drill or screw driver to tighten the tabs ***(fig. 10)*** Insert the diffuser housing as shown in ***(fig. 8)*** and press it flush with the ceiling. ***(fig. 9)*** Use a power drill with a phillips head bit or a screwdriver to tighten the 4 hold down tabs ***(fig. 10)*** making sure that they press firmly to the sheetrock ***(fig. 11)***

Note: In rare instances, if the diffuser housing is compressed between two rafters, it may be necessary to create a slight bevel in the rafter. Check with building codes first.

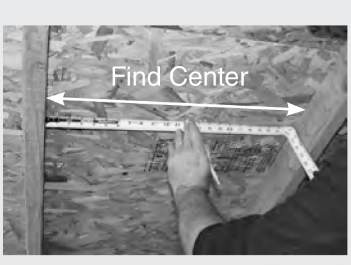


fig. 12

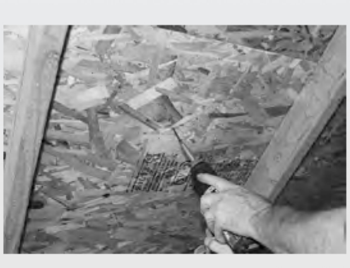


fig. 13

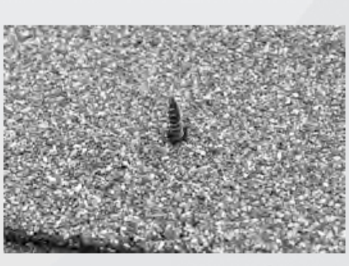


fig. 14

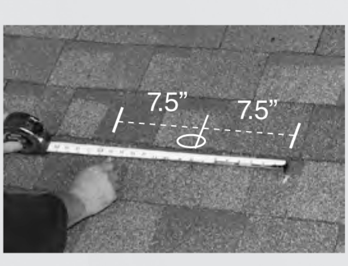


fig. 15

Step 4 - Cutting the roof opening

From inside the attic, locate the desired position for the flashing and dome opening. Generally, directly above the ceiling opening is optimal but this position can vary depending on your particular attic conditions. **Angles over 30º can reduce light transmission.** Start by measuring the distance between the 2 rafters and mark the center location. ***(fig. 12)*** You should have a minimum distance between them to allow for a 15" hole to be cut. Drive the 2" deck screw through so that it shows on the outside roof surface. ***(fig. 13 and 14)*** From on the roof, measure 7.5" out and mark from both sides of the exposed screw, ***(fig. 15)*** repeat this at 90 and 45 degree angles to achieve a circular pattern. Then draw in the pattern with chalk. ***(fig. 16)*** Using a 1/2" drill bit, drill a pilot hole on the edge of the circle to fit the saw blade for cutting. ***(fig. 17)*** Start cutting the circle with a reciprocating saw, as you reach the end of the cut secure the material by holding onto the exposed screw so it won't fall into the attic space ***(fig. 18)*** Remove the disk of material and discard ***(fig. 19)***

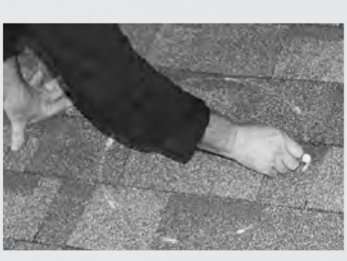


fig. 16

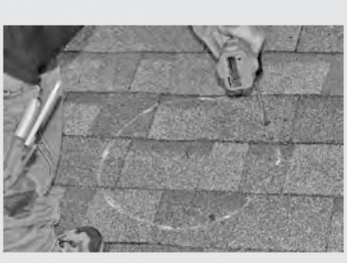


fig. 17

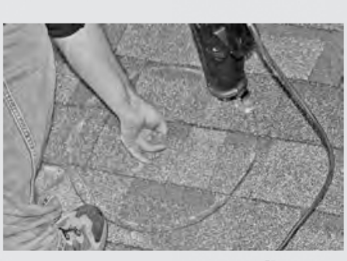


fig. 18

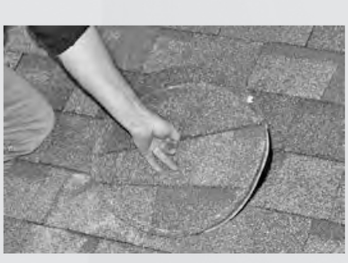


fig. 19

Step 5 - Measure and cut the excess flex tube

From inside the attic, measure the distance from the top of the roof opening to 6" below the opening in the ceiling. ***(fig. 20)*** Remove the flashing and dome assembly from the box but keep it in the cardboard insert. With the unit upside down, pull up the flex tube to its most extended position and mark the same distance as in the attic space. ***(fig. 21)***

Begin cutting the excess material first with a sharp utility knife ***(fig. 22)*** then when you get to the end of the cut use the wire cutters or tin snips to cut through the wire. ***(fig. 23)***

Drop the flex tube into the roof opening ***(fig. 24)*** then set the flashing assembly into position and make a note of the outer footprint or mark with chalk. ***(fig. 25)***

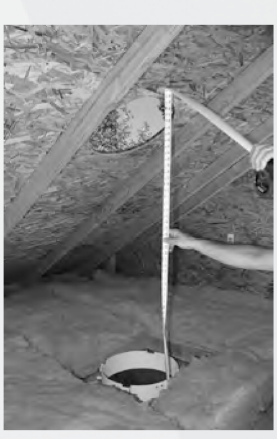


fig. 20

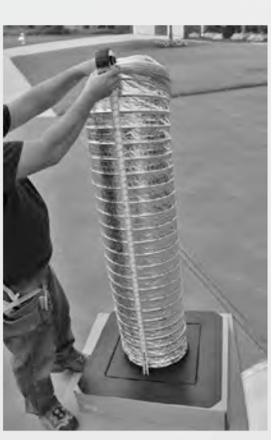


fig. 21

ATTENTION: It is important to cut enough extra length of tube to clear the ceiling opening by at least 6 inches.

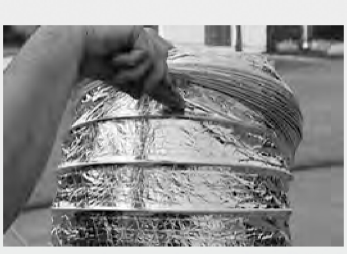


fig. 22

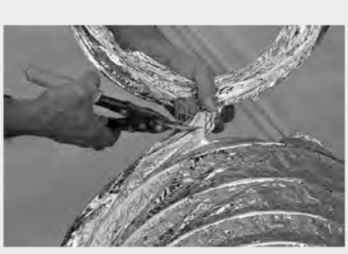


fig. 23

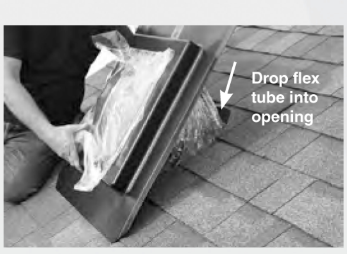


fig. 24

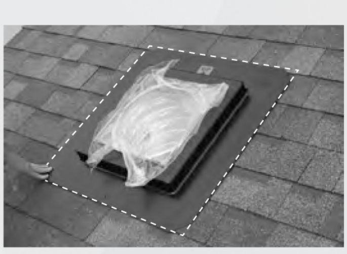


fig. 25

Step 6 - Remove the surrounding shingles

Once you know the outline of the flashing, remove the surrounding shingles with a pry bar. ***(fig. 26)*** Composition asphalt shingles can be installed in various sizes depending on your roof configuration so it is recommended that you remove the entire piece as you find it in the footprint of the SkylightTube flashing ***(fig. 27)*** Make sure you remove enough shingles to allow the upper 2/3rds of the flashing to make direct contact with the sheathing and roof underlayment ***(fig. 28)*** Save all of the pieces you remove for re-installation later.

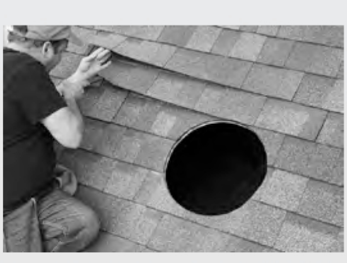


fig. 26

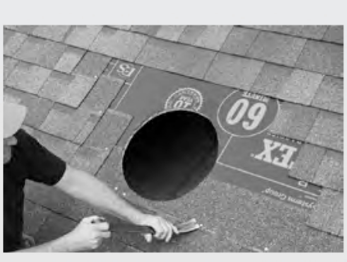


fig. 27

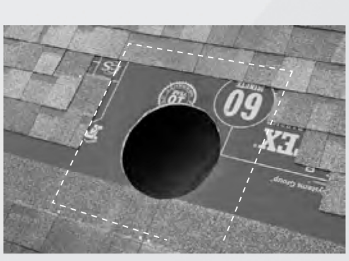


fig. 28

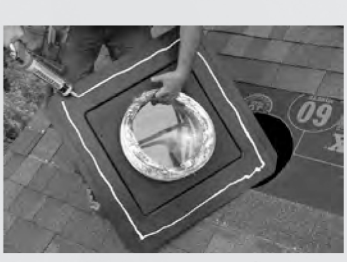


fig. 29

Step 7 - Install the flashing assembly

When you are ready to install the flashing assembly, first apply a bead of waterproof caulk or roofing adhesive to the underside of the flashing base. ***(fig. 29)*** Re-install the flex tube into the roof opening and carefully place the top of the flashing underneath the top-most row of shingles. ***(fig. 30)*** Line up the bottom of the flashing with the shingle line and drive Screw A into the center hole on the bottom as shown in ***(fig. 31)*** This will allow you to fine tune the angle if necessary. Use standard 1.5" roofing nails or screws to secure the flashing in place. ***(fig. 32)*** There are 7 positions as shown in ***(fig. 33)***.

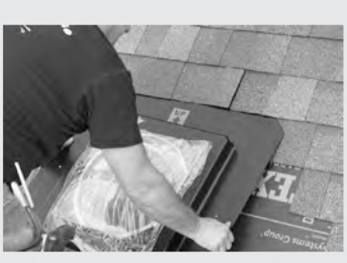


fig. 30

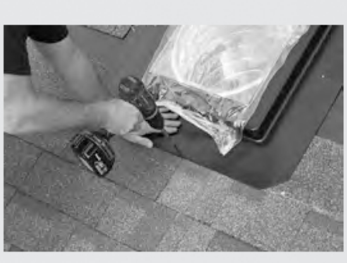


fig. 31

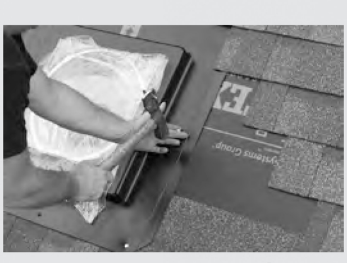


fig. 32

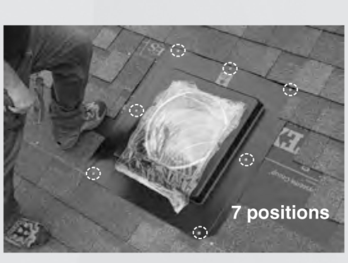


fig. 33

Step 8 - Replace the shingles

Use a framing square to cut the replacement shingles to size. ***(fig. 34)*** Generally, you will want to refit each row so that they overlap the flashing up to 1/2 inch from the inner edge of the dome frame as shown in ***(fig. 35)*** Trim excess material from shingles so they can fit all around with the same 1/2 inch gap. ***(fig. 36)*** Use roofing nails and adhesive to re-attach the shingles. For ideal fit and finish, we recommend covering the flashing with shingles leaving only the bottom center area of the flashing exposed as shown. ***(fig. 37)***

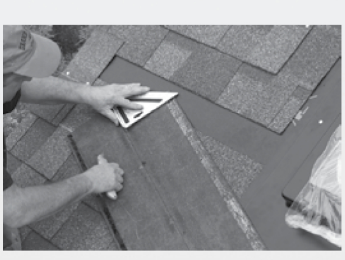


fig. 34

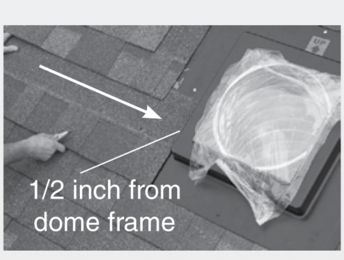


fig. 35

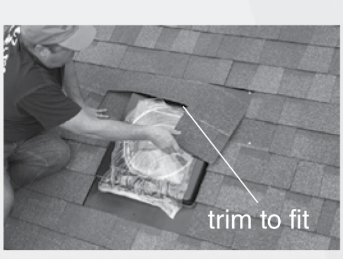


fig. 36

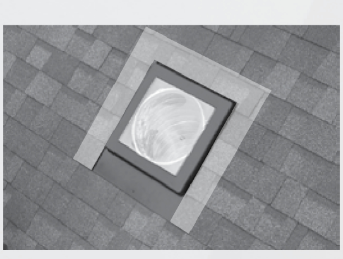


fig. 37

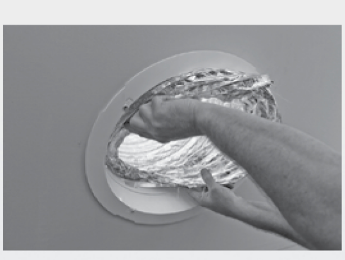


fig. 38a

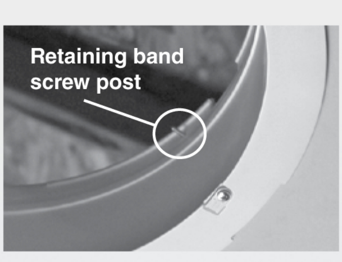


fig. 38b

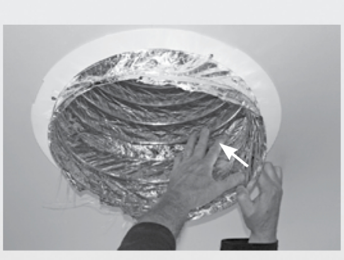


fig. 39

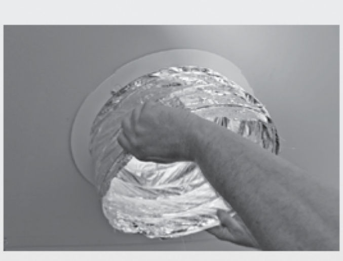
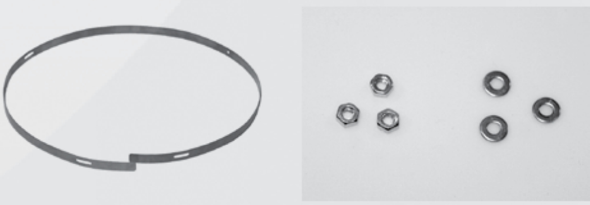


fig. 40

Step 9 - Secure the flex tube to the diffuser housing

Gently maneuver the flex tube through the diffuser housing making sure not to force it over the retaining band screw posts. ***(fig. 38a) (fig. 38b)*** You will need to compress the flex tube inward to clear each screw post as you pull it down.
(fig. 39) It is important to not puncture the flex tube as you go through this step.
Pull the tube down through the housing until it is fully extended. It is important to pull the flex tube as tight as possible for the best light transmission. ***(fig. 40)***


Retaining band and hardware

Once the flex tube is in the desired position, poke the 3 retaining band screw posts through the flex material so they are exposed, then compress the retaining band and insert it into the flex tube. ***(fig. 41)*** Attach the center hole of the retaining band onto one of the screw posts. ***(fig. 42)*** Overlap the outer slots of the retaining band and attach to the corresponding post. Then hand the remaining slot onto the remaining post. ***(fig. 43)*** Carefully attach the retaining band hardware to each post and tighten with pliers or an adjustable wrench. ***(fig. 44)***

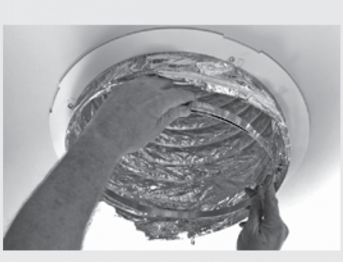


fig.41

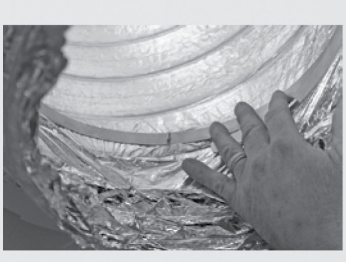


fig. 42

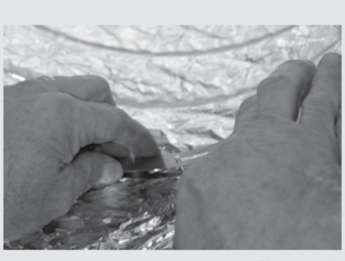


fig. 43

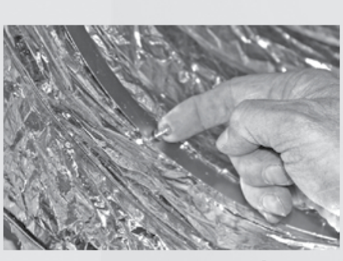


fig. 44

Step 10 - Trim off excess tube material and secure with foil tape

Once the retaining band is secure, trim off the excess material with a utility knife at the edge of the diffuser housing, and cut the wire with tin snips or wire cutters. ***(fig. 45) (fig. 46)*** Fold in the extra material over the retaining band and make sure to push it up beyond the indent on the inner edge of the housing so that the diffuser assembly will fit properly. ***(fig. 47)*** Use the included aluminium tape to secure the extra material to the edges. Try to tape it down as smooth as possible. ***(fig. 48)***

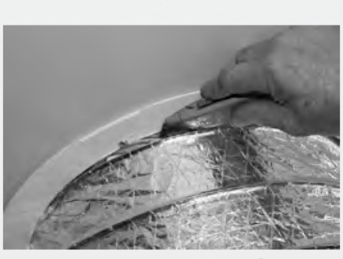


fig. 45

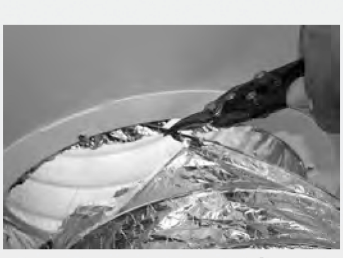


fig. 46

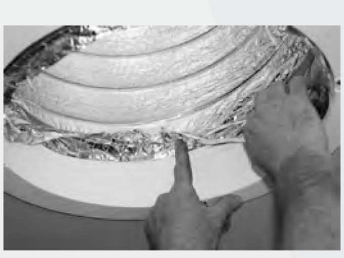


fig. 47

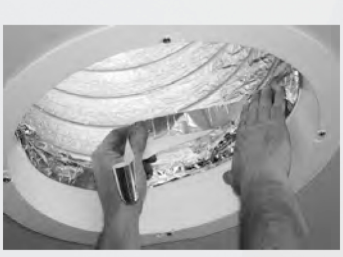


fig. 48

Step 11 - Insert diffuser assembly and trim ring

Once the foil tape is installed, re-check to make sure there is no material covering the indent ***(fig. 49)*** then insert the diffuser assembly as shown ***(fig. 50)*** Use a flat head screwdriver to flip the 4 hold-down tabs inward to secure the diffuser assembly in position. ***(fig. 51)*** Finally, install the trim ring by lining up the inner tabs with the guides then pressing it flush against the diffuser housing. Turn counter clockwise to secure. ***(fig. 52 and 53)***

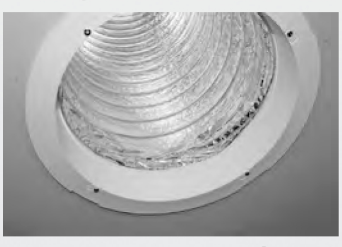


fig. 49

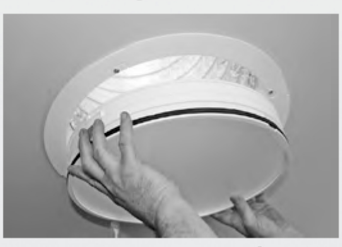


fig. 50

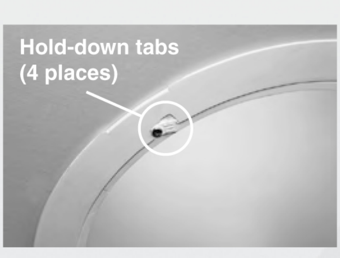


fig. 51

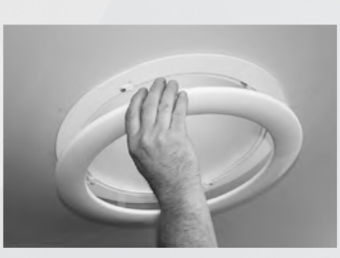


fig. 52

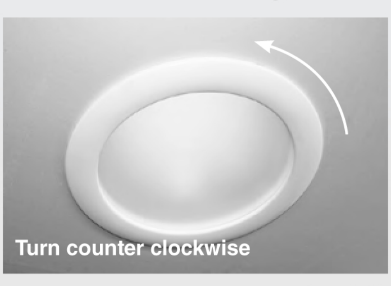
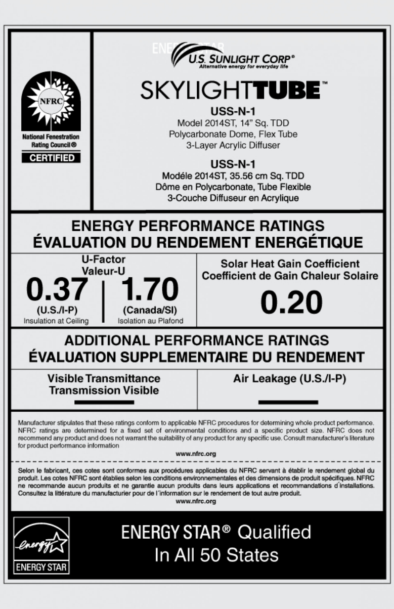


fig. 53



U.S. SUNLIGHT CORP®
Alternative energy for everyday life

National Fenestration Rating Council®
CERTIFIED

SKYLIGHTTUBE™

USS-N-1
Model 2014ST, 14" Sq. TDD
Polycarbonate Dome, Flex Tube
3-Layer Acrylic Diffuser

USS-N-1
Modèle 2014ST, 35.56 cm Sq. TDD
Dôme en Polycarbonate, Tube Flexible
3-Couche Diffuseur en Acrylique

ENERGY PERFORMANCE RATINGS
ÉVALUATION DU RENDEMENT ENERGÉTIQUE

U-Factor Valeur-U		Solar Heat Gain Coefficient Coefficient de Gain Chaleur Solaire
0.37 (U.S./I-P) Insulation at Ceiling	1.70 (Canada/SI) Isolation au Plafond	0.20

ADDITIONAL PERFORMANCE RATINGS
ÉVALUATION SUPPLEMENTAIRE DU RENDEMENT

Visible Transmittance Transmission Visible	Air Leakage (U.S./I-P)
—	—

Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for product performance information
www.nfrc.org

Selon le fabricant, ces cotes sont conformes aux procédures applicables du NFRC servant à établir le rendement global du produit. Les cotes NFRC sont établies selon les conditions environnementales et des dimensions de produit spécifiques. NFRC ne recommande aucun produits et ne garantie aucun produits dans leurs applications et recommandations d'installations. Consultez la littérature du manufacturier pour de l'information sur le rendement de tout autre produit.
www.nfrc.org

ENERGY STAR® Qualified
In All 50 States

DESIGNED, TESTED
& APPROVED
FOR Severe Weather

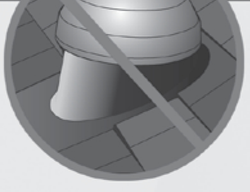
*Florida Building Code Approval
Excluding Miami-Dade and Broward Counties

Once the SkylightTube is installed it requires no maintenance. However you may wish to rinse off the dome annually to keep it clear of any residual dirt or debris.

SKYLIGHTTUBE

Hassle-free daylighting

enjoy all of the benefits of a traditional skylight with the savings and versatility of a flexible tubelight!


Perfect replacement for dome shaped tubelights!

Sleek, Low-Profile Design

Blends in with any roof type and is a great improvement over traditional dome-shaped tube lights.

Integrated Roof Flashing and Flexible Tube

Allow for easy, single person installation. The pre-attached 8 ft of flexible tube can be installed just about anywhere!

For Installations Over 7.5 ft.
***Optional Rigid Tube Kit is Available**

Go to our website or review the chart below for recommendations on the correct length of tube for your situation.

Optional Rigid Tube Kit

***Optional Cold Climate Lens Kit**

Recommended for extreme cold climates for optimal energy savings.

***Optional Light Kit adds convenient receptacle for evening light**

Perfect for replacing traditional recessed light fixtures. Simply add on the Light Kit to utilize house-powered lighting in the evening.

Sizing Recommendations

Flexible Tube Install Length	Square Footage Equivalent	Perfect For Illuminating
2 feet	175 sq/ft	Breakfast Room
4 feet	150 sq/ft	Hallway
6 feet	125 sq/ft	Laundry Room
8 feet	100 sq/ft	Walk-in Closet
Over 8 feet	**Optional Rigid Tube Kit Recommended*** *Also good to amplify lighting at any tube length	

For strongest lighting, use on southern face of home

***To order any SkylightTube accessory, please call 877-50-USSUN**

Visit our website at www.ussunlight.com